Identity realization, multiple logics and legitimacy

Çakmakl, Anl Divarc; Boone, Christophe; van Witteloostuijn, Arjen

published in
Accounting, Organizations and Society
2020

DOI (link to publisher)
10.1016/j.aos.2020.101104

document version
Publisher's PDF, also known as Version of record

citation for published version (APA)
Çakmakl, A. D., Boone, C., & van Witteloostuijn, A. (2020). Identity realization, multiple logics and legitimacy: Organizational foundings during the emergence of the Dutch accounting industry. *Accounting, Organizations and Society*, *83*, 1-12. [101104]. https://doi.org/10.1016/j.aos.2020.101104

Accounting, Organizations and Society 83 (2020) 101104

Contents lists available at ScienceDirect

Accounting, Organizations and Society

journal homepage: www.elsevier.com/locate/aos

Identity realization, multiple logics and legitimacy: Organizational foundings during the emergence of the Dutch accounting industry

Anıl Divarcı Çakmaklı [a, *], Christophe Boone [b], Arjen van Witteloostuijn [c]

[a] Koç University, Rumelifeneri Yolu, 34450, Sarıyer, Istanbul, Turkey
[b] University of Antwerp, Stadscampus, Kipdorp 59, S.Z. 305, 2000, Antwerp, Belgium
[c] Vrije Universiteit Amsterdam, De Boelelaan 1105, 1081, HV Amsterdam, the Netherlands

ARTICLE INFO

Article history:
Received 24 June 2016
Received in revised form
15 November 2019
Accepted 7 January 2020
Available online 21 January 2020

1. Introduction

Many studies in the tradition of so-called "new accounting history" (Napier, 2006) contributed to a rich understanding of the evolution of professionalism in the accountancy field in the late 19th and 20th century. From a critical perspective, for instance, the role of professional accounting organizations in the early struggle for gaining legitimacy in Anglo-Saxon communities such as England, Scotland, the UK and the US was closely examined, arguing how the organization of the profession was instrumental in serving the self-interest of the profession, in subtle interaction with the public service of accounting as a common good (e.g., Walker, 1991, 1995, 2004; Preston, Cooper, Scarbrough, & Chilton, 1995; Robson, Willmott, Cooper, & Puxty, 1994; Wilmott, 1986). A similar evolution emerged in other countries such as Australia, Belgium, Canada and South Africa (e.g., Carnegie & Edwards, 2001; Chua & Poullaos, 2002; De Beelde, 2002). A key argument in these critical analyses is that the professional organization of accountancy was, and still is, motivated, at least in part, by the wish to protect "established accountants from interlopers" by "erecting market shelters" and controlling professional membership through "the imposition of exclusionary closure" (cf. Walker, 2004, p. 127). To achieve this, the profession lobbied for a subtle combination of self and state regulation (cf. Maijoor & van Witteloostuijn, 1996), offering an account of collective entrenchment and status maintenance (Walker, 1991, p. 257).

In the early days of accountancy, a "continual quest for legitimation" (Preston et al., 1995, p. 507) characterized the profession. In this context, professional organizations were established as political bodies that "focused upon the specifics of their mode of self-government, including their efforts to gain the state's support and legitimation of their occupational closure … the establishment of a professional body offers the organizational means of regulating both the quality and flow of 'professional' services, thereby limiting labour supply and raising its market value … professional associations have sought to create monopolies of labour by restricting entry, by determining the type and duration of training and by regulating the mode and standards of practice" (Willmott, 1986, p. 558 & 559). This critical role of self and state regulation is emphasized in the neo-institutionalist account of the field's history across countries (see, e.g., Suddaby, Cooper, & Greenwood, 2007), including the essential force of professional associations (Greenwood, Suddaby, & Hinings, 2002).

We contribute to this literature by adding insights from a lens complementary to critical analysis and neo-institutionalist theory: organizational ecology (cf. Bröcheler, Maijoor, & van Witteloostuijn, 2004). Specifically, we argue how the evolution of accountancy as a *profession* is heavily influenced by the evolution of accountancy's professional *associations*. In so doing, we offer another theoretical account of the emergence of the accounting firm as a *new organizational form*, arguing that the role of the interaction between professional associations is critical, particularly the extent to which these professional associations compete or collaborate, or fight or unite. Theoretically, we take modern organizational ecology's density dependency theory as our stepping stone, combined with

* Corresponding author.
E-mail addresses: adivarci@ku.edu.tr (A.D. Çakmaklı), christophe.boone@uantwerpen.be (C. Boone), a.van.witteloostuijn@vu.nl (A. van Witteloostuijn).

https://doi.org/10.1016/j.aos.2020.101104

insights from the identity realization literature. We first rather extensively introduce and explain this abstract line of theoretical reasoning. Next, we apply this logic to the concrete case of the early decades of the (Dutch) accounting industry, developing tailor-made hypotheses. Subsequently, we test our hypotheses with detailed density count data about the Dutch accounting industry in the period 1884–1939. We end with a conclusion and discussion.

2. Theoretical framework

2.1. Two countervailing forces

The form emergence process is a central topic in organization theory (Aldrich & Fiol, 1994; Hannan, Polos, & Carroll, 2007; McKendrick, Jaffee, Carroll, & Khessina, 2003; Rao, Monin, & Durand, 2003). Organizational forms "represent classes of organizations the audience understand to be similar in their core features and distinctive from other classes of organizations" (Fiol & Romanelli, 2012, p. 597). Therefore, in an emerging field or population, organizations face a daunting task: they need to develop identities in the absence of population-level legitimacy, balancing uniqueness – in order to differentiate themselves from others to carve out their own distinct niches – with similarity – in order to build a collective identity facilitating the form's taken-for-grantedness (Deephouse, 1999; King, Clemens, & Fry, 2011). New organizational forms gain legitimacy, i.e., gradually obtain a taken-for-granted status, when audiences develop shared understandings about the core features that define the form. It is well established in the literature that an increasing number of organizations that carry the core features of the nascent form facilitates the development of shared understandings and, therefore, increases the legitimacy of that form (Hannan & Freeman, 1989). However, organizations have to be similar enough because otherwise the development of shared understandings among audiences is hampered (Bogaert, Boone, & Carroll, 2010; McKendrick et al., 2003). At the same time, in order to carve their own individual niche, organizations need to be different from each other as well, which represents an important dilemma in emerging organizational forms.

The pressure to develop a unique organizational identity and a collectively shared identity often spurs an emerging population's members to strategically push different opinions about how to organize the field, which schemata to apply, and how to perform the new tasks. This two-pronged search for identity and legitimacy often triggers fragmented collective action, where actors in a nascent field are likely to disagree about what constitutes the core identity features of the new organizational form (Rao, Morrill, & Zald, 2000). The end result of this tension is that organizations self-organize around different sub-populations that have different identity claims and that all aim for dominance, resulting in the emergence of different sub-populations or sub-forms striving for legitimacy (Rao et al., 2000). Sub-forms or sub-populations refer to the groups that support different institutional logics for the organizational form.

We focus on two countervailing forces that underscore the complexities associated with the organizational form emergence process. That is, we develop the argument that the effect of fragmentation among niche-carving activities by different groups of collective actors on founding rates is a double-edged sword. On the one hand, such contestation blurs boundaries, opens up resource space and reduces entry barriers, so spurring the founding rates of, and within different types of sub-populations. Density in the niches of these sub-populations will increase as a result, positively affecting these sub-populations' legitimacy and founding rates in turn. On the other hand, however, these contestation processes increase population-level fuzziness and decrease the overall legitimacy of the organizational form by suppressing the founding rates. Moreover, given that population-level legitimacy tends to spillover to less favored sub-populations (Barnett & King, 2008), especially sub-populations that offer high perceived quality templates are expected to suffer most from decreases of the legitimacy "commons" at the population level.

2.2. Organizational and collective identity realization

In emerging populations, organizations need to carve out niches and create resource space out of nothing for survival (Lounsbury & Glynn, 2001). This goes hand in hand with the need to realize organizational identities that embody the new form's central, enduring and distinctive characteristics, and that address two fundamental questions: "who are we as an individual organization?", and "who are we as a group of organizations?" (Albert & Whetten, 1985; Whetten & Mackey, 2002). For populations that already have a taken-for-granted status, proven recipes with respect to organizing routines and institutional logics can be adopted relatively easily by newly founded organizations. If different sub-population carve out different niches, however, multiple logics exist that compete for attention (Dacin, Goodstein, & Richard Scott, 2002). Then, population-level identity realization is a huge challenge, being a critical threat in emerging fields that lack shared understanding.

On the one hand, organizations must develop unique individual identities by differentiating themselves from their competitors; on the other hand, reducing population fuzziness requires the development of a common ground to spur the taken-for-grantedness of the new form. Therefore, members of a nascent form have to develop distinguishing organizational features that specify the ways in which the organizational actor is both similar to and different from others in the emerging field (Greenwood & Hinings, 1993; Lounsbury & Glynn, 2001; Scott, 2001; Whetten, 2006). While individual organizations try to find their similarities and differences, group identification is essential for effective social exchange and accountability (Whetten & Mackey, 2002). At the population level, organizations need to construct their common characteristics associated with membership ties. As Aldrich and Fiol (1994) point out, the uniqueness of a single organization during the early stages of an industry's development is not sufficient, but must be counterbalanced with the collective efforts of all players in the emerging industry to jointly produce a new identity.

As a result of this tension, a single answer to the "who are we?" question cannot be easily found; within a single emerging population, multiple and competing answers to this critical identity question circulate. Indeed, consensus on a single institutional logic (and hence rapid institutionalization of the new form) is the exception rather than the rule (Purdy & Gray, 2009). In general, different potential categories or logics are available, and different claims can be made for different audiences as to what is appropriate (Whetten & Mackey, 2002). As a result, self-categorization processes become important whereby the organizations' membership in identity categories or sub-population groups are declared (Whetten & Mackey, 2002). By making positional choices when entering the emerging population, organizations carve out niches and gradually realize their identities (King et al., 2011), structuring long-run competitive and symbiotic relationships (Albert, Ashforth, & Dutton, 2000).

2.3. Fragmented collective action, competing logics and boundary expansion

In the absence of a single institutional logic, which provides the organizing principles to guide activity, collective action plays a key

role in structuring the environment and constructing the meanings within emerging fields (Galvin, 2002; Rao et al., 2000). The dilemma between organizational uniqueness and collective identity, however, generally leads to fragmented collective action. Individual organizations claiming specific identities self-organize into distinct collective groups that try to push their core features and schemata that define the nascent form (Bogaert et al., 2010; Thornton & Ocasio, 1999). As the answers concerning the "who are we?" question differ, collective actors make claims and counter-claims in an effort to legitimate certain groups over others, defining firm routines and capabilities in ways that they believe will provide them with a competitive advantage (Glynn, 2000; Reay & Hinings, 2009). During this process, different institutional logics emerge that compete for dominance.

An important consequence of the niche-carving activities of multiple collective actors is that resource space is opened up for different sub-populations. When alternative institutional logics compete for dominance, newcomers will have different options in terms of the templates to adopt. They might even strategically push new institutional logics in order to develop distinguishing identity features. As a result, self-regulatory fragmented collective action expands the boundaries of the whole population by opening up niches for entrepreneurs. As the number of competing institutional logics increases in the emerging field, the number of sub-populations and hence population-level fuzziness increase, too. In contrast, when a single institutional logic dominates the emerging field, the boundaries of the new population will be more solid, which reduces new entrants' differentiation and positional opportunities, and hence increases a population's entry barriers. With respect to the founding process, we therefore expect that founding rates in different sub-populations will increase due to fragmented collective action. This affects organizational densities in these emerging sub-populations, which – according to density dependence reasoning – increases the legitimacy of that particular sub-population, further spurring sub-population founding rates (Kuilman & Li, 2009).

2.4. Fuzziness and population-level legitimacy

The growing number of organizations that adopt different templates paradoxically undermines the legitimacy commons at the population level. This follows from the revised density dependence theory as developed by Hannan et al. (2007). The revised theory stresses the importance of sense-making and cognitive categorization processes among core audiences in the form emergence process. Established organizational forms are pictured as categories with high taken-for-grantedness, which implies strong consensus about the labels and schemata that apply to members of the category. In nascent forms, however, perceptual ambiguity abounds and classification is cumbersome. The new category's labels and schemata are only partially applicable. As a result, fuzziness is high, which hampers the development of shared understandings and taken-for-grantedness.

In classic density dependence theory, the assumption is that each organization is a full member of the nascent form and that legitimacy increases with each and every additional member. The new theory, however, emphasizes the impact of fuzziness, implying that individual organizations have a different "grade of memberships" (GoM) in the emerging field. The theory predicts that if audiences perceive organizations to have low GoMs, then a nascent form does not stand out against its background (referred to as contrast), which precludes the emergence of a taken-for-granted category (Bogaert et al., 2010). As a corollary, the revised density dependence theory predicts that adding organizations with low GoMs to a population might even reduce the field's legitimacy as fuzziness (contrast) increases (decreases).

Population-level legitimacy is a common good that is created by collective action. As with all common goods, they are open to exploitation and free-riding (Barnett & King, 2008; Lenox, 2006; Ostrom, 1990). In a similar vein, legitimacy is not expected to spillover to all types of members of a nascent form to an equal extent; some might benefit (suffer) more from the legitimacy commons (fuzziness) than others (Bogaert et al., 2010; Kuilman & Li, 2009). For instance, Bogaert et al. (2010) argue that especially low-quality organizations would benefit (i.e., have lower mortality rates) from population-level legitimacy as they lack a strong and robust organizational identity. Conversely, they argue that the negative impact of increases in a population's fuzziness would backlash more to high-quality organizational members. Before developing specific hypotheses on the basis of this rather abstract logic, bringing the above argument to life in the context of the (Dutch) accounting industry, we first briefly introduce the details of our setting.

3. Dutch accounting

3.1. Historical context

The emergence of the Dutch accounting industry can be traced back to late 19th century. As the number of modern enterprises operating with limited liability started to increase, the need for accounting and auditing went up as well (Bogaert et al., 2010; de Vries, 1985; Maijoor, Buijink, van Witteloostuijn, & Zinken, 1995). Even though labels such as bookkeeping and controller were already established, due to the changes related to the Industrial Revolution, accounting emerged as a new profession in the Netherlands (Bogaert et al., 2010; de Vries, 1985; Maijoor et al., 1995). In this period of the industry's history, which lasted until after the Second World War, as is clear from the historic account of de Vries (1985); cf. Bogaert et al., 2010), demand for accounting services was "created" with much effort by accountants and their associations in an environment that was unregulated.

So, we can reasonably assume that supply-side variables (such as density, associations, et cetera) affect subsequent legitimacy/demand, which in turn drives foundings. However, the new profession struggled to gain legitimacy as a result of the absence of consensus among accountants about how to set the main rules for the profession, such as the required expertise and rules of conduct. As a consequence of this disagreement, accountants organized into different associations in order to convince the external audience about the necessity of their profession, emphasizing that their members had the expertise to answer to this need (Bogaert et al., 2010; de Vries, 1985). Over time, the disagreement resulted in the establishment of a series of self-regulated associations competing for dominance.

The first Dutch professional society of accountants, *Nederlands Instituut voor Accountants* (*NIVA*), was formed in 1895 (Buijink, 1992). However, an independent audit of financial statements was only made obligatory by Dutch law in 1961 for listed companies, implying that the Dutch accounting industry had a long period in an unregulated environment (Buijink, 1992). Even after the foundation of the first Dutch professional association, clear institutional codes about how the profession should eventually look like were lacking (de Vries, 1985). The ultimate goal of *NIVA* was to define the profession of accounting, the function of accountants, and the necessary qualifications to be an accountant. According to *NIVA*, a candidate had to pass an official exam in order to be qualified as an accountant.

At the end of the 19th century, the number of accountants continued to increase; however, they were not all members of *NIVA*.

As a precaution, *NIVA* established a tough qualifying exam for new members, in order to keep the emerging profession's standards high. However, their selectivity in accepting new members triggered the establishment of a new association called *Nederlandse Bond van Accountants* (*Bond*) in 1901. *Bond*, too, established criteria for member acceptance; however, the level of the exam they required was lower than that of *NIVA*. Hence, *Bond* reflected a lower quality than *NIVA*. The establishment of a second association failed to solve the conflict among accountants; quite to the contrary, as this gave way to the establishment of even more associations. In 1902 and 1903, two other organizations were founded: *Nederlandse Academie van Accountants*, and the *Nationale Organisatie van Accountants*. This period is characterized as the "disorganization of the profession" in the *De Accountant*, which was the official periodical of *NIVA* (Bogaert et al., 2010).

The disagreement about the qualifying exam, selection criteria and how to perform as a profession continued over decades, with all associations seeking dominance. Two further events illustrate this prolonged state of contestation. First, an attempt to establish a monopoly association to unify all others in 1904 even resulted in the establishment of yet new associations. Second, the difference of opinion as to the requirements to be qualified as an accountant not only emerged between associations, but also among members of *NIVA*. As a result, a new association called the *Nederlandse Accountants Vereniging* (*NAV*) was established as a *NIVA* spinoff in 1907. The aim of *NAV* was to increase the standards of the profession beyond those promoted by *NIVA*.

Between 1907 and 1935, two developments determined the evolution of the Dutch accounting industry. Firstly, the demand for accountants increased with the growth of the number of large enterprises. Secondly, the scope of services expected from accountants expanded and became more complex, an example being entry into consultancy activities (Bogaert et al., 2010; de Vries, 1985). However, despite the increasing need for accountants, the discussions and struggles between different associations continued in this period, further triggering the emergence of new associations. This is visualized in Fig. 1.

These developments and increasing concerns within the profession resulted in unification efforts. The aim was to introduce a uniform federal exam issued by a new independent institution. These efforts were associated with the merger of a few of the associations: *NIVA* and *NAV* in 1919 (*Instituut*), *Organisatie* and *Academie* (*Organisatie*) in 1922 and, finally, *Instituut*, *Organisatie* and *Bond* in 1934. This process of consolidation implied that the profession gained increasing societal esteem and legitimation. Finally, supported by the introduction of legal rules, the Dutch accounting profession became institutionalized at the beginning of World War II (Bogaert et al., 2010; de Vries, 1985).

3.2. Density dependence studies

Earlier ecology-inspired work on the Dutch accounting industry mainly focuses on the relationship between classic density and founding/mortality rates (Boone, Bröcheler, & Carroll, 2000; Bröcheler et al., 2004; Cattani, Pennings, & Wezel, 2003; Pennings, Lee, & van Witteloostuijn, 1998). Boone et al. (2000), focusing on the early decades in the industry's history, reveal an effect of density on founding and mortality rates that is opposite to that predicted by classic density dependence theory. According to the findings of Boone et al., density-related legitimation processes failed to materialize at the onset of the Dutch audit industry, with density not affecting entry rates positively and exit rates negatively (2000: 372). In a follow-up study, Cattani et al. (2003) propose that the main explanation for this is the absence of any control for geographical heterogeneity within the population in Boone et al. (2000). Therefore, Cattani et al. (2003) analyze founding rates in the Dutch accounting industry as a function of spatial density, revealing evidence in support of classic density dependence theory.

Bogaert et al. (2010) adopt another perspective. They analyze the Dutch accounting industry by taking Hannan et al.'s (2007) revised theory of density dependence as their steppingstone. Their main focus is on legitimation and firm exit. They provide support for hypotheses central to the revised density dependence theory, revealing the central role of fuzzy density and contrast. Their key argument is that Boone et al.'s (2000) findings can be explained by the fuzziness that characterized the early evolution of the industry, implying that the increase of classic density cannot capture processes of legitimation in the early decades of the Dutch accounting industry. In the current study, we further develop this perspective by focusing on the role of multiple competing logics represented by different self-regulatory professional associations in the context of a revised density dependence framework, analyzing the impact of this environment of contestation on founding rates.

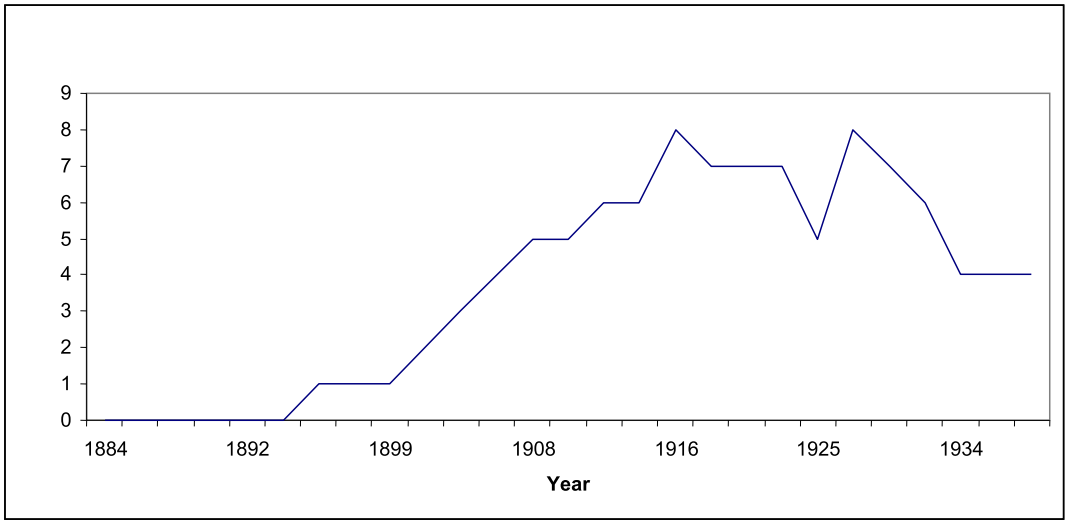

Fig. 1. Number of professional associations in Dutch accounting, 1884–1939.

4. Hypotheses

In emerging fields that can be described in terms of multiple institutional logics, we can treat the adopters of a specific institutional logic as a sub-population. In such a contested environment, the critical question for a newcomer will be how to identify itself vis-à-vis the different logics and associated sub-populations. In the face of multiple institutional logics, if the form does not have a taken-for-granted status, newcomers will have different options in terms of the templates to adopt, and hence as to how to define their identity. If a single institutional logic dominates the field, the boundaries of the profession are relatively solid, the criteria for the form are already defined, and hence entry barriers are higher – all compared to the case of multiple competing institutional logics.

However, if the form does not have a taken-for-granted status, and if multiple institutional logics circulate in the emerging field, then a newcomer has the freedom to choose from this set of competing logics, or even to propose a new institutional logic as part of strategic behavior aimed at differentiation by developing distinguishing features. Therefore, adding a specific institutional logic – represented by collective action in the form of a specific self-regulatory association proposing an alternative template – will expand the boundaries of the whole population by opening up niches for newcomers. This makes entry easier: as the number of competing logics increases in the emerging field, more sub-populations are created; and as more sub-populations are created, the founding rate for any sub-population will increase.

We can translate this argument to the Dutch accounting industry as follows. As the number of professional associations increases in an emerging field, every newcomer would have the freedom to choose one of these associations to be a member of, or may even decide to come up with a totally different understanding of the form, and establish a new association related to this understanding. Therefore, each association with a different institutional logic would reduce entry barriers and increase foundings.

Hypothesis 1. The number of associations is positively related with the organizational founding rate in a focal association's sub-population.

Hypothesis 1 provides a ceteris paribus benchmark prediction only, ignoring heterogeneity among associations and the alternative logics they promote. However, we cannot assume that each collective action – here, in the form of self-regulatory associations – representing and supporting a different institutional logic will increase the legitimation of the emerging form. Instead, we argue that while contestation among collective actors does hamper the development of a legitimate collective identity, the impact on the overall legitimacy of the form will differ from one collective actor to the other depending on the "quality" or "status"[1] of the institutional logic proposed by the specific collective actor. Legitimation of a form is a common good, open to exploitation just like in exemplary cases such as fisheries and forests (Barnett & King, 2008).

That is, if participation in these kinds of collective action, such as self-regulatory associations, is voluntary, the risk of free-riding is always there (Lenox, 2006; Ostrom, 1990). Therefore, we have to take into account the spillover effects between different types of collective actors, as well as those that do not participate in any collective action. We argue that the key dimension of heterogeneity is the status – or quality – of the collective actors. In our Dutch accounting industry context, this relates to the strictness of the professional requirements and standards as promoted by each association. As a collective good, form legitimation transcends to all sub-populations and all associations. However, the contribution of each association to overall legitimacy of the emerging form depends on their quality. To achieve high quality, high selectivity with respect to the admission of members is required for any focal association in order to keep a high professional standard. However, in such a case, there is also the incentive to deviate in the context of competition with other associations by setting a lower standard in order to attract more members. The more associations follow this strategy, the more the average quality of the profession will decrease.

Hypothesis 2. The number of associations is positively related with the organizational founding rate in a focal association's sub-population especially when the focal association's offering is of low quality.

One of the important assumptions of classic density dependence theory is that each member of the population contributes equally to the legitimacy of the form. However, competing institutional logics blur the boundaries of a field, by causing ambiguity or fuzziness as to what the new form precisely does entail. In such a fragmented environment, featuring multiple competing logics represented by rivaling self-regulatory professional associations, increased fuzziness will, in turn, decrease the overall legitimacy of the form. In order to take into account the impact of fuzziness on the legitimation of the form, Hannan et al. (2007) introduce a revised theory of density dependent legitimation. This theory incorporates fuzziness in the form emergence process by introducing the new concept of grade-of-membership (GoM), which indicates the degree to which an entity (organization) belongs to the set (population) (Hannan et al., 2007, p. 15). A fuzzy set provides descriptions of cases in which membership can be partial. If the organization is a full-fledged member of a population, then the GoM value is equal to 1; if the entity does not belong to the population at all, then the GoM value is equal to 0. This can be seen as the classic perspective to analyze the membership of entities.

In the form suggested by the revised theory, the membership of an organization can take any value between 0 and 1, denoting partial membership of the entity for any value: $0 < \text{GoM} < 1$. An organization may contribute to different fields by being a member of multiple populations. Building on Hannan et al. (2007), we claim that in an environment that features multiple competing logics, as represented by different self-regulatory professional associations in the Dutch accounting industry, fuzziness will increase. This will, in turn, decrease the overall legitimacy of the accounting organizational form, which backlashes, on average, to all associations. In order to analyze the impact of fuzziness on the overall legitimacy of the form, we employ GoM weighted density. That is, we assign different GoM-values to organizations in the industry, taking into account the contributions of individual organizations to the population-level legitimation of the form (see the Methodology section on this). When GoM-weighted density increases, fuzziness decreases and, as a result, the overall legitimacy of the form will increase. This, in turn, spurs the founding rate of accounting firms in all focal associations.

Hypothesis 3. GoM-weighted density is positively related with the organizational founding rate in a focal association's sub-population.

However, low-quality associations are expected to benefit more from the externalities generated during the gradual legitimation process of the form, as explained above. The reason is that high-quality associations are more visible and powerful as individual entities because of their high selectivity. Hence, they rely less on their category membership for their identity (Bogaert et al., 2010). In our setting of the Dutch accounting industry, this translates into the argument that potential members of low-quality professional

[1] 'Status' and 'quality' are highly related concepts in our context.

associations will benefit more from any increase in GoM-weighted density.

Hypothesis 4. GoM-weighted density is positively related with the organizational founding rate in a focal association's subpopulation especially when the focal association's offering is of low quality.

5. Methodology

5.1. Data

Our data include information about the Dutch accounting industry for the emergence period 1884–1939. We model founding rates (defined as the yearly number of new entrants) at the level of each and every professional association, implying that we have panel data for all associations that are observed over time. We constructed an extra category for the 'mixed' foundings, defined as the newcomer accounting firms in which accountants are members of different associations. In total, the database consists of 133 observations. The number of observations is 107 without the 'mixed' category.

The data are gathered from the membership lists of the Dutch accountant associations, financial directories, annual reports, and minutes of accountant associations. Membership lists contain information at the level of the individual accountant (Maijoor et al., 1995). This information is aggregated to the firm and association level in order to reconstruct the life histories of all accounting firms active in this period of the industry's history (Buijink, 1993); Maijoor et al., 1995; Bogaert et al., 2010). The number of firms in which the accountants are not member of any association are also included in the data as a "non-member" category.

5.2. Independent variables

The main independent variables are based on the counts of organizations in the (sub-) population. The first three independent variables are straightforward density measures. The first is the number of self-regulatory professional associations, denoted *Number of associations*, operating at time *t*. During the observation period, 14 associations ever existed. For details about year of founding and exit, and other descriptives of each association, we refer to Bogaert et al. (2010: 133). The second is *Classic density*, referring to the number of organizations operating in the population at time *t*. For robustness analysis, we also employ *Own density,* which involves the organizational density within the association to which the firm belongs at time *t*.

To construct the fourth independent variable, GoM-weighted density at the population level, referred to as *Weighted density*, the contribution of each organization to the legitimacy of the profession at the population level is counted by estimating each organization's GoM. The latter can be estimated by means of the relative popularity of its association in the population (see Bogaert et al., 2010). Aggregating these GoMs results in a weighted density count that explicitly captures "fuzziness" of the form. Formally, weighted density is calculated as follows:

$$\sum_{i=1}^{15} \frac{N_{it}}{N_t} N_{it},$$

where N_t equals the number of organizations in the population at time *t*, and N_{it} represents the organizational density of association *i* at time *t* (Bogaert et al., 2010). The numbers of organizations not being a member of any association are counted as "not-associated" (as a result, *i* goes from 1 to 15). If all organizations, say 100, are members of the same association, then fuzziness is zero, implying that classic and weighted density are both equal to 100. If there are two associations each with 50 organizations, then classic density still equals 100. However, each organization's GoM would only be .5 (50/100; instead of 1) and weighted density would only equal 0.5*50 + 0.5*50 = 50, thus taking fuzziness into account. We employ lagged values of *Classic density*, *Own density* and *Weighted density* in order to avoid simultaneity issues.

The final independent variable is included as a key component of interaction terms with our focal density variables: the status – or quality – of a professional association. *High-quality association* is coded as 1 for *NIVA* or *NAV*, which are the high-quality associations, and 0 otherwise [see de Vries (1985) and Bogaert et al. (2000) for evidence for this dichotomy]. Of course, *High-quality association* is added as a main or simple effect variable, too. Since we have no main effect hypothesis for *High-quality association*, this measure is treated as a control variable.

5.3. Control variables

Following earlier work on the Dutch accounting industry (e.g., Pennings et al., 1998; Bogaert et al., 2010; Boone et al., 2000; 2009), we include a series of control variables, particularly to filter out the effect of increasing demand – or carrying capacity, as this is referred to in organizational ecology. Specifically, any change in demand for accountancy services could well explain any change in the founding rate of accountancy firms (our dependent variable). Moreover, in line with the organizational ecology tradition (see, e.g., Kendrick et al., 2003), we lag our critical demand control variables, to minimize the likelihood of endogeneity.

First, we introduce a dummy variable for *World War I*, which equals 1 for the years between 1914 and 1918, and 0 otherwise. We expect that the founding rates might have been depressed in this period. Second, in order to control for the demand for accounting services, we add the yearly number of newly established limited liability firms, referred to as *New limited liability firm density* (obtained from the yearly editions of Van Nierop & Baak's *Naamlooze Vennootschappen*), since the need for transparency, and hence the demand for accounting services, increased with the emergence of modern limited liability firms at the end of the 19th and beginning of the 20th century (Bogaert et al., 2010; Edwards, 1989). Third, we include lagged *Founding* and *Mortality*. We expect that previous exits will open space for the newcomers, and vice versa for the previous entries. We introduce two-year lagged values of both variables. Finally, we add a dummy variable for the *Pre-association period* that takes 0 for the pre-association period and 1 otherwise. This dummy allows us to control for the period starting with the foundation of the first accounting firm (1883) until the foundation of the first professional accounting association (1895).

5.4. Model specification

Since our dependent variables are count measures, a Poisson process provides a natural baseline model for organizational founding processes (Hannan & Freeman, 1987). The basic Poisson model for event count data is

$$\Pr(Y_t = y) = e^{\lambda(x_t)}[\lambda(x_t)^y / y!],$$

where both the expected number of events in a unit interval – that is $\Pr(Y_t = y)$ – and the variance of the number of events in each interval equal the rate $\lambda(x_t)$. Poisson regression becomes non-robust if the variance of the dependent variable exceeds its mean, which is known as overdispersion (McCullagh et al., 1989).

Overdispersion does not affect the coefficient estimates, but the standard errors might be underestimated, thus generating chi-square values that are overestimated (Wezel, 2005).

Negative binomial regression deals adequately with overdispersion (Cattani et al., 2003; Hannan & Freeman, 1989). In this approach, a stochastic error component is added to the model. The error component has a Gamma distribution that parametrizes overdispersion (Wezel, 2005). Because of overdispersion in our sample, we apply the negative binomial regression model. The general formulation is

$$\lambda_t = \exp(\pi' x_t)\varepsilon_t,$$

where the error term ε_t follows a Gamma distribution.

We have panel data, where the cross-sections correspond to associations and the time series to years. To deal with potential autocorrelation, following Baron, Hannan, and Burton (2001), we used Liang and Zeger's (1986) method of generalized estimating equations (GEE). GEE generalizes quasi-likelihood estimation to the panel data context. We assume an exchangeable autocorrelation structure. The results are robust for other assumed autocorrelation structures. This provides further evidence that autocorrelation is unlikely to drive our results. Because the observations within the associations cannot be assumed to be independent, we report Huber-White robust standard errors. We used STATA 9.0 for statistical analyses.

5.5. Causality

As in any design that is not a randomized trial, causal inference is potentially a challenge. Theoretically, with reference to the specific historical context of the Dutch accounting industry, we argue that endogeneity is unlikely to be an issue and that causality runs in the direction we hypothesize. Empirically, we could benefit from the unbalanced panel nature of our data to minimize the likelihood of endogeneity and reversed causality, in line with best practices in the organizational ecology tradition (cf. McKendrick et al., 2003). First, we added critical control variables to filter out the influence of demand (or carrying capacity), which is an obvious alternative explanation for founding. Second, to avoid simultaneity, we lagged essential control and independent variables with one or two years. Third, we adopted the GEE method with robust standard errors, correcting for autocorrelation.

6. Findings

Descriptive statistics and correlations are reported in Table 1, and the association-level founding rates model's estimates are provided in Tables 2 and 3.[2]

We first focus on the effects of the main control variables, as reported in Model 1 in Table 2. Lagged *Founding* does not have any significant impact, and lagged *Mortality* has a significantly positive impact, as expected, suggesting that firms that exit from the industry open up space for newcomers. *High-quality association* and *New limited liability firm density* have a significantly positive effect on the founding rates. The estimates of *World War I* and *Pre-association period* are both non-significant.

Model 2 in Table 2 shows a significantly positive effect of the *Number of associations* on the organizational founding rate in the focal association's sub-population: The contestation between professional associations, which represent competing institutional logics, spurs founding rates as entry barriers are reduced. This result provides support for H1. The moderating effect of *High-quality association* on the founding rate in the focal association's sub-population in Model 3 in Table 2 is significantly negative, which is in line with H2. Fig. 2 visualizes this interaction. The number of associations increases the founding rate especially when the focal association's offering is of low quality.

In Model 4 of Table 2, we test the impact of *Weighted density* on associational founding rates. We find that *Weighted density* significantly increases an association's founding rate, which is as predicted in H3. Model 5 of Table 2 shows that *Classic Density* also increases the founding rate. However, when we compare Models 4 and 5, we observe that the effect of *Classic density* is much smaller than that of *Weighted density*. To further analyze the impact of fuzziness on founding, we conducted an additional analysis focusing on the interaction of *Classic Density* and *Number of associations.* Model 6 includes the interaction effect of *Classic Density* and *Number of associations,* showing that this interaction is significantly negative, which also supports H3. Fig. 3 visualizes this interaction effect. As expected, classic density only spurs the founding rate when the number of associations – and thus fuzziness – is low.

Finally, the result in Model 7 provides support for H4: *Weighted density* significantly increases the founding rate particularly in *Low-quality associations*. Fig. 4 plots this interaction effect.

In Models 8 to 15, reported in Table 3, we provide estimates of models added by way of robustness analyses. In these models, firstly, we analyzed the impact of *Own density* on associational foundings. Secondly, the focal variables are included in pairwise combinations in order to check which effects of the independent variables are unique. From Model 8 in Table 3, we learn that the *Own density* of a focal association significantly increases the organizational founding rate in that focal association's sub-population by signaling that the legitimacy of that particular template induces entries into that self-regulatory association. For the pairwise combinations, first, we treat the *Number of associations* as a control variable, adding the other focal independent variables one by one (Models 9 to 11). *Own density*, *Weighted density*, and the interaction of *High-quality association* and *Weighted density* are still significant. Subsequently, in Models 12 to 14, we control for *Own density*. Again, the results are robust, except for the interaction of *High-quality association* and *Weighted density*. Moreover, in Model 15, we include the *Number of associations*, *Weighted density* and *Own density* simultaneously to the model: the estimate of *Weighted density* turns insignificant. All in all, we can conclude that the effects of the *Number of associations* and *Own density* dominate.

7. Discussion and conclusion

The analysis reported here enhances prior work in the new accounting history tradition by taking into account the tension between structural and agency explanations of institutionalization. We do so by integrating institutional logic thinking (Lounsbury, 2008) in organizational ecology's revised theory of density dependence (Hannan et al., 2007), adding a complementary lens to the literature on the history of the industry. We apply our integrative framework to the case of legitimation development in the context of the new organizational form emergence process in the early days of the Dutch accounting industry. The concept of institutional logic takes into account both the broader cultural beliefs and rules that structure the field, as well as the decision-making of actors in the field (Purdy & Gray, 2009). Given the critique of neo-institutional theory as to the latter's weak formulation of

[2] For the models in which we analyze the moderating impact of association quality, we removed the observations that are belonging to the 'mixed' founding category because these observations are unclassifiable. For this reason, the number of observations is less for the interaction models with association quality.

Table 1
Descriptive statistics.

	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11
1. Founding rate	4.87	8.26	0	58	–										
2. Number of Associations	5.12	2.35	0	8	.16*	–									
3. Classic Density (t-1)	174.56	123.98	1	379	.24*	.42*	–								
4. Weighted Density (t-1)	48.36	36.80	1	170.40	.23*	.13	.86*	–							
5. Own Density (t-1)	22.36	33.51	0	226	.68*	.12	.43*	.44*	–						
6. Founding (t-2)	4.77	7.44	0	42	.53*	.11	.34*	.29*	.73*	–					
7. Mortality (t-2)	20.58	19.98	0	61	.23*	.12	.82*	.80*	.39*	.36*	–				
8. High-quality Associations	.13	.34	0	1	.53*	-.05	-.02	.02	.62*	.49*	-.004	–			
9. New limited liability firm density	745.29	459.67	38	1758	.05	.67*	-.04	-.26*	-.07	-.05	-.15	-.03	–		
10. Pre-association period	.07	.26	0	1	-.15	-.62*	-.38*	-.34*	-.17*	-.15	-.26*	-.11	-.40*	–	
11.World War I	.17	.37	0	1	-.05	.37*	-.22*	-.30*	-.11	-.16	-.30*	-.02	.38*	-.13	–

*$p < 0.05$ (two-tailed), n = 133.

Table 2
Negative binomial regression models for the founding rate of Dutch accounting firms.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	31 (.48)	-.89 (.70)	−1.52 (1.07)	-.25 (.47)	-.12 (.55)	−1.76** (.75)	-.03 (.35)
Founding (*t*-2)	02 (.02)	.01 (.02)	.01 (.01)	.02 (.02)	.01 (.02)	.02 (.02)	.02 (.02)
Mortality (*t*-2)	01*** (.004)	.01*** (.004)	.01*** (.01)	-.003 (.005)	-.01 (.004)	.001 (.01)	.02*** (.01)
High-quality associations	1.36*** (.23)	1.59*** (.24)	3.38*** (1.06)	1.37*** (.20)	1.46*** (.21)	1.58*** (.25)	1.72*** (.41)
New limited liability firm density	001** (.0003)	.0001 (.0003)	.0001 (.0004)	.001*** (.0003)	.001 (.0003)	.0002 (.0004)	.001*** (.0003)
World War I	09 (.24)	-.07 (.24)	-.10 (.28)	.12 (.26)	.13 (.26)	-.36 (.33)	-.01 (.31)
Pre-association period	-.26 (.30)	1.02 (.62)	1.83** (.93)	.24 (.35)	.20 (.43)	1.80** (.72)	.07 (.36)
Number of Associations		.29*** (.09)	.39*** (.12)		.	.48*** (.15)	
Classic Density (*t*-1)					004*** (.001)	.01** (.003)	
Weighted Density (*t*-1)				.01*** (.003)			.004 (.01)
High-quality association*Number of associations			-.35**(.16)				
Number of associations * Classic density (*t*-1)						-.001** (.001)	
High-quality association* Weighted density (*t*-1)							-.01* (.01)
Wald Chi2	97.16*** *n=133*	132.16*** *n=133*	148.70*** *n=107*	154.37*** *n=133*	136.51*** *n=133*	90.22*** *n=133*	404.92*** *n=107*

*$p < 0.10$; **$p < 0.05$; and ***$p < 0.01$ (two-tailed).

Table 3
Robustness analyses: Own density and pairwise combinations.

	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Constant	.30 (.45)	-.78 (.77)	−1.28* (.70)	−1.10 (.84)	−1.48 (1.07)	-.03 (.44)	-.15 (.33)	−1.00 (.76)
Founding (*t*-2)	3.19e-07 (0.01)	-.003 (.01)	.01 (.02)	.01 (.02)	-.01 (.01)	.01 (.01)	-.01 (.02)	.0004 (.01)
Mortality (*t*-2)	.003 (.004)	.003 (.004)	-.0003 (.005)	.02** (.01)	.01* (.01)	-.004 (.004)	.01 (.01)	-.002 (.005)
High-quality associations	.74*** (.16)	1.00*** (.17)	1.60*** (.22)	2.00*** (.31)	2.95*** (1.01)	.89*** (.17)	1.13** (.46)	1.11** (.16)
New limited liability firm density	.001*** (.0003)	.0002 (.0003)	.0003 (.0003)	.0002 (.0003)	.0002 (.0003)	.001*** (.0003)	.001*** (.0003)	.0003 (.0003)
World War I	.02 (.26)	-.16 (.26)	-.07 (.26)	-.14 (.31)	-.16 (.31)	.06 (.26)	-.10 (.36)	-.13 (.27)
Pre-association period	-.31 (.32)	.86 (.70)	1.35** (.65)	1.28 (.84)	1.74* (.97)	.003 (.38)	.15 (.39)	1.06 (.72)
Number of Associations		.27*** (.10)	.28*** (.09)	.29** (.13)	.38*** (.13)		.01 (.01)	.27*** (.10)
Own Density (*t*-1)	.01*** (.003)	.01*** (.002)		.	.01*** (.003)	.01*** (.004)	.01 (.01)	.01*** (.003)
Weighted Density (*t*-1)			.01*** (.003)	004 (.004)		.01* (.004)	-01 (.01)	.005 (.004)
High-quality association*Number of associations					-.36*** (.13)			
Number of associations*Weighted density (*t*-1)								
High-quality association*Weighted density (*t*-1)				-.01** (.005)			-.01 (.01)	
Wald Chi2	79.47*** *n=133*	107.50*** *n=133*	184.82*** *n=133*	136.38*** *n=107*	106.49*** *n=107*	116.45*** *n=133*	41.31*** *n=107*	147.84*** *n=133*

*$p < 0.10$; **$p < 0.05$; and ***$p < 0.01$ (two-tailed).

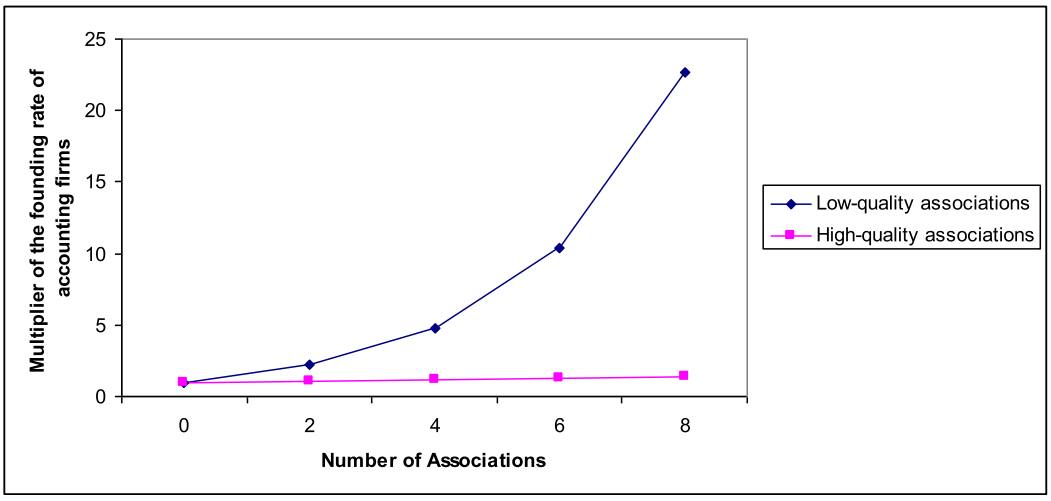

Fig. 2. The interaction effect of Number of associations and their Quality on accounting firm founding rate.

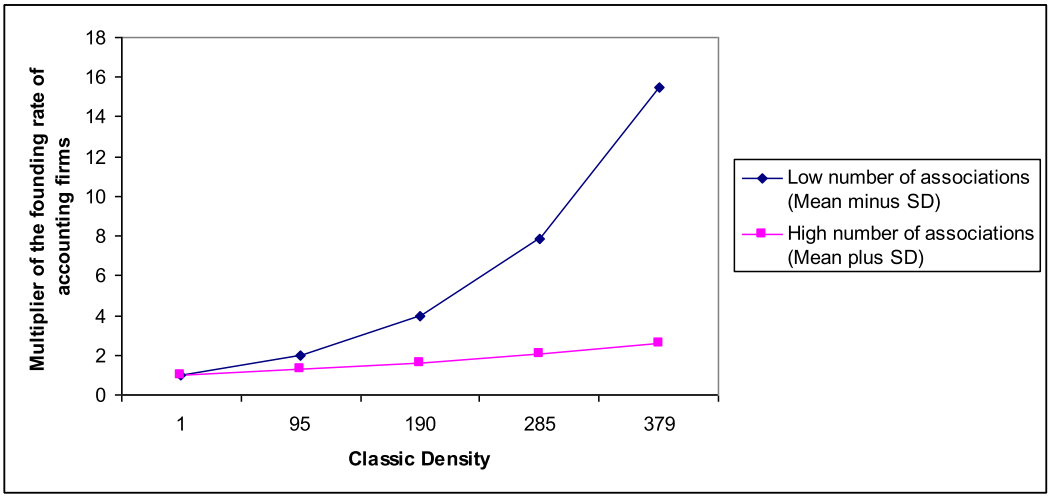

Fig. 3. The interaction effect of Classic Density and Number of Associations on accounting firm founding rate.

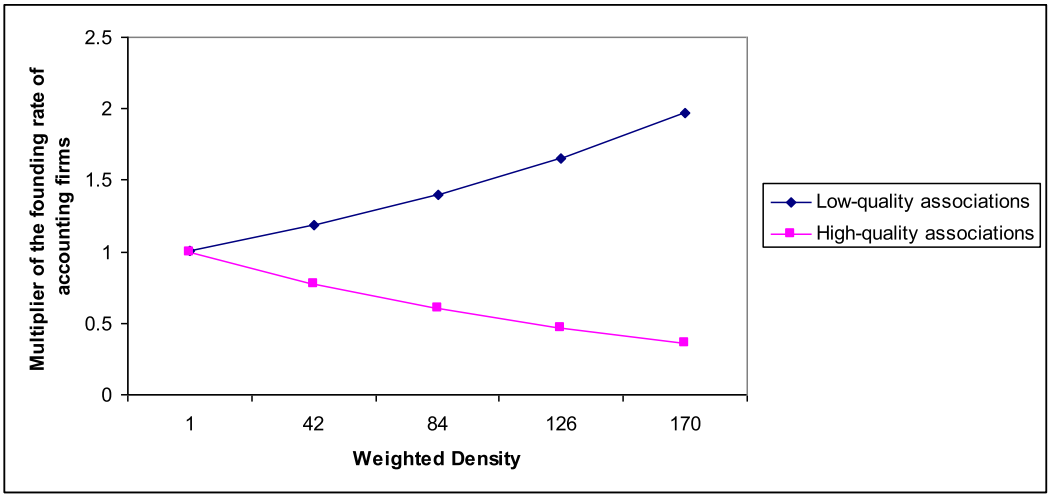

Fig. 4. The interaction effect of Weighted Density and Quality on accounting firm founding rate.

rationality, we take on board the role and impact of agents in the field as decision-makers, as well as the structure of the field in terms of the organization of collective action.

In this context, we introduce the concept of organizational identity by emphasizing the process of identity realization in order to explain the variation in practices – or institutional logics – in emerging industries (King et al., 2011). The vehicle for this is the organization of competing collective action initiatives, each promoting an alternative institutional logic in the form of an organizational template for the emerging field. Here, identity realization is critical. As the answer to the "who are we?" question differs between rivaling collective action initiatives in the early history of an emerging form, organizations develop their own identity depending upon their answers. The organizational identity corresponding with the dominant institutional logic eventually crystallizes into a population-level collective identity that serves, in turn, as a template for organizational action.

So, in this early history of an emerging field, the fragmented structure of the environment comes with contestation of rivaling institutional logics, organized through competing collective action initiatives. Such a fragmented population features a set of sub-populations, each of these promoting an alternative template for the emerging organizational form. As a consequence, the evolution of classic density does not reflect the underlying struggle for legitimation, as its assumption of organizational homogeneity does not sit well with the fragmented state of the emerging population. Rather, weighted density, emphasizing organizational heterogeneity and partial grades of (sub-)population membership, captures the intrinsically fuzzy process of collective population-level legitimacy development in an emerging field where different institutional logics fight for dominance (Bogaert et al., 2010; Hannan et al., 2007).

The case of the early history of the Dutch accounting industry in the late 19th and early 20th century nicely fits with this theoretical argument. In these early days, a unique official authority for regulating the profession was lacking. The organizational actors in this emerging field, accountants, engaged in strategic behavior as decision-makers by organizing collective action in the form of rivaling professional associations. To take into account the role of decision-makers and the identity realization process, we formalized our measures at the level of the sub-population of associations, focusing on the sub-populations' founding rates. Our argument is that these associations were vehicles of collective action of the associated sub-populations that promoted competing institutional logics. As expected, indeed, our results reveal that as the number of competing logics reflected by the number of associations increases, association-level founding rates increase as well, since rivaling associations enlarge the options for newcomers and decrease entry barriers.

However, competing institutional logics may well differ in their quality, and hence in their impact on founding rates. Specifically, we argue that rivaling institutional logics differ in the status – or quality – of the corresponding organizational template. In the Dutch accounting industry setting, this is reflected in the more or less strict membership requirements and professional standards promoted by different associations. According to our results, even though low-quality associations open up space for newcomers, they hamper the overall legitimacy of the emerging profession by undermining the requirements to be an accountant. We explain this by arguing that overall legitimacy of a population is an intangible common pool resource – or "commons" (Ostrom, 1990). As in the case of forests and fisheries, legitimacy can be conceptualized as a common good that all members of a population benefit from. However, as with all common goods, self-interested behavior may have consequences for the whole population.

Additionally, our study provides a contribution to density dependence theory by taking into account the heterogeneity in the industry during the form emergence process, and by providing support that density weighted by grades of membership (GoM) is a better measure in order to explain this process. With a few exceptions (e.g., Bogaert et al., 2010; McKendrick et al., 2003), prior studies neglected this heterogeneity that is intrinsically connected to the organizational form emergence process. In our study, in line with this revised density dependence theory, we employ GoM-weighted density in order to measure the impact of this heterogeneity. In support of the revised theory, we find that weighted density measures outperform their classic density counterparts in our organizational founding rate analyses.

In the case of the Dutch accounting industry, competition among associations generates quality differences, reflected in the entry criteria they promote for the profession. The end result of this competition and contestation is lower entry barriers for the low-quality associations. Low-quality associations harm the process of collective legitimation development at the population level, but they do so whilst enhancing entry into their own sub-population. With quality differences, legitimation externalities across sub-populations are asymmetric: low-quality associations benefit from legitimation-increasing densities in high-quality associations, but not vice versa.

From what we know of the history of the accounting industry in other countries in the new accounting history tradition, the above logic might well explain the early evolution in countries such as England, Scotland, the UK and the US (e.g., Walker, 1991, 1995, 2004; Preston et al., 1995; Robson et al., 1994; Wilmott, 1986), as well as Australia, Belgium, Canada and South Africa (e.g., Carnegie & Edwards, 2001; Chua & Poullaos, 2002; De Beelde, 2002), with contesting professional associations standing for different quality standards. Future work in different countries is needed to examine the extent to which the Dutch case is specific or generalizes to other contexts. And in the latter case, such replication work may reveal the contingencies that determine the specifics of historical trajectories across countries.

Combining insights from the new accounting history literature with those from the current study, we would like to suggest three ideas for future work, by way of illustration. A key argument from the new accounting history literature is that an important aim of professional accounting associations in many countries was (and is) to lobby for state regulation that benefits the profession by (a) offering the right to control entry into the profession and (b) introducing mandatory auditing regulation. This combination implies that the profession can self-regulate the supply of services in a market with mandatory demand. Creating "artifical" scarcity in this way is a very powerful rent-seeking strategy (see Maijoor & van Witteloostuijn, 1996). Taking the current paper's logic to this issue suggests that we can expect that countries hosting a lower number of competing professional associations in the early days of the industry's history were more successful, and were so earlier in their history, to have the wished regulation – i.e., (a) and (b) above – in place. Studying this requires a multi-country comparative research design (cf. Boone, Meuwissen, & van Witteloostuijn, 2009), with sufficient variation in the key independent variable – i.e., the number of competing professional associations. To this we could add the second hypothesis, again based on the current paper's theory, that this effect is moderated by cross-association quality differences: The larger these differences, the lower will be the likelihood that (a) and (b) will be introduced (early). Finally, a third future research suggestion relates to the issue of generalizability. In the later history of an industry, including accounting, a reverse evolution may emerge when, for whatever reason, the number of professional associations does increase, reducing the

industry's legitimacy and making lobbying less effective.

Much of the above implies that we need further work in other countries, preferably in the form of comparative cross-country designs, to deepen our understanding of the underlying causal chain, as well as the latter's boundary conditions (cf. Boone et al., 2009). Specifically, different countries are associated with different evolutionary processes, as witnessed in a different associational and regulatory dynamic. For instance, in the Netherlands, the merger of the professional associations into a single monopolist co-emerged with national regulation regarding the demand and supply of accountancy services (see Maijoor & van Witteloostuijn, 1996). Hence, to carefully unravel the combined and relative effect on founding rates of competing associations and demand-promoting regulations, we have to turn to another country. Generally, to replicate studies in different samples (here, countries) is conducive to the development of accumulative knowledge, including systematic insight into the impact of boundary conditions (Walker, Brewer, Lee, Petrovsky, & van Witteloostuijn, 2019).

Acknowledgement

The authors gratefully acknowledge financial support from the Research Foundation - Flanders (FWO) Odysseus program. We appreciate all insightful comments from the participants in the Resource Partitioning Workshop in Durham, 2010 and Academy of Management Meeting in Boston, USA, 2012.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.aos.2020.101104.

References

Albert, S., Ashforth, B. E., & Dutton, J. E. (2000). Organizational Identity and Identification: Charting new waters and building new bridges. *Academy of Management Review, 25*(1), 13–17.
Albert, S., & Whetten, D. A. (1985). Organizational identity. *Research in Organizational Behavior, 7*, 263–295.
Aldrich, H. E., & Fiol, C. M. (1994). Fools rush in? The institutional context of industry creation. *Academy of Management Review, 19*(4), 645–670.
Barnett, M. L., & King, A. A. (2008). Good fences make good neighbors: A longitudinal analysis of an industry self-regulatory institution. *Academy of Management Journal, 51*(6), 1150–1170.
Baron, J. N., Hannan, M. T., & Burton, M. D. (2001). Labor Pains: Organizational change and employee turnover in young, high-tech firms. *American Journal of Sociology, 106*(4), 960–1012.
Bogaert, S., Boone, C., & Carroll, G. R. (2010). Organizational form emergence and competing professional schemata of Dutch accounting, 1884–1939. *Research in the Sociology of Organizations, 31*, 115–150.
Boone, C., Bröcheler, V., & Carroll, G. R. (2000). Custom Service: Application and tests of resource-partitioning theory among Dutch auditing firms from 1896 to 1992. *Organization Studies, 21*(2), 355–381.
Boone, C., Meuwissen, R., & van Witteloostuijn, A. (2009). Resource-Partitioning processes in the audit industry. *Strategic Organization, 7*(3), 307–338.
Bröcheler, V., Maijoor, S., & van Witteloostuijn, A. (2004). Auditor human capital and accounting firm survival: The Dutch accounting industry in 1930–1992. *Accounting, Organizations and Society, 29*(7), 627–646.
Buijink, W. F. J. (1992). *Empirical Financial Accounting Research:Compliance with regulation, distributional properties of financial ratios and demand for external auditing*. Maastricht: Universitaire Pers Maastricht.
Buijink, & Maijoor.. (1993). *Maastricht Accounting and Auditing Research Centre University of Limburg The Netherlands, Research Memorandum*.
Carnegie, G. D., & Edwards, J. R. (2001). The construction of the professional accountant: The case of the incorporated institute of accountants, victoria (1886). *Accounting, Organizations and Society, 26*, 301–325.
Cattani, G., Pennings, J. M., & Wezel, F. C. (2003). Spatial and temporal heterogeneity in founding patterns. *Organization Science, 14*(6), 670–685.
Chua, W. F., & Poullaos, C. (2002). The empirire strikes back? An exploration of centre-periphery interaction between the ICAEW and accounting associations in the self-governing colonies of Australia, Canada and South Africa, 1880-1907. *Accounting, Organizations and Society, 27*, 409–445.
Dacin, T. M., Goodstein, J., & Richard Scott, W. (2002). Institutional theory and institutional change: Introduction to the special research forum. *Academy of Management Journal, 45*(1), 45–56.
De Beelde, I. (2002). Creating a profession "out of nothing"? The case of the Belgian auditing profession. *Accounting, Organizations and Society, 27*, 447–470.
Deephouse, D. L. (1999). To Be different, or to Be the same? It's a question (and theory) of strategic balance. *Strategic Management Journal, 20*(2), 147–166.
Edwards, J. R. (1989). *A history of financial accounting*. London: Routledge.
Fiol, C. M., & Romanelli, E. (2012). Before Identity: The emergence of new organizational forms. *Organization Science, 23*(3), 597–611.
Galvin, T. L. (2002). Examining Institutional Change: Evidence from the founding dynamics of U.S. health care interest associations. *Academy of Management Journal, 45*(4), 673–696.
Glynn, M. A. (2000). When Cymbals Become Symbols: Conflict over organizational identity within a symphony orchestra. *Organization Science, 11*(3), 285–298.
Greenwood, R., & Hinings, C. R. (1993). Understanding strategic change: The contribution of archetypes. *Academy of Management Journal, 36*(5), 1052–1081.
Greenwood, R., Suddaby, R., & Hinings, C. R. (2002). Theorizing Change: The role of professional associations in the transformation of institutionalized fields. *Academy of Management Journal, 45*(1), 58–80.
Hannan, M. T., & Freeman, J. (1987). The ecology of organizational founding: American labor unions, 1836-1985. *American Journal of Sociology, 92*(4), 910–943.
Hannan, M. T., & Freeman, J. (1989). *Organizational ecology*. Cambridge, MA: Harvard University Press.
Hannan, M. T., Polos, L., & Carroll, G. R. (2007). *Logics of organization theory: Audiences, codes, and ecologies*. Princeton, New Jersey: Princeton University Press.
King, B. D., Clemens, E. S., & Fry, M. (2011). Identity Realization and Organizational Forms: Differentiation and consolidation of identities among Arizona's charter schools. *Organization Science, 22*(3), 554–572.
Kuilman, J. G., & Li, J. (2009). Grades of membership and legitimacy spillovers: Foreign banks in shanghai 1847–1935. *Academy of Management Journal, 52*(2), 229–245.
Lenox, M. (2006). The role of private, decentralized institutions in sustaining industry self-regulation. *Organization Science, 17*(6), 677–690.
Liang, K. Y., & Zeger, S. L. (1986). Longitudinal data analysis using generalized linear models. *Biometrika, 73*(1), 13–22.
Lounsbury, M. (2008). Institutional rationality and practice variation: New directions in the institutional analysis of practice. *Accounting, Organizations and Society, 33*(4–5), 349–361.
Lounsbury, M., & Glynn, M. A. (2001). Cultural Entrepreneurship: Stories, legitimacy, and the acquisition of resources. *Strategic Management Journal, 22*, 545–564.
Maijoor, S. M., Buijink, W. F. J., van Witteloostuijn, A., & Zinken, M. (1995). Long-Term Concentration in the Dutch Audit Market: The use of auditor association membership lists in historical research. *Abacus, 31*, 152–177.
Maijoor, S. J., & van Witteloostuijn, A. (1996). An empirical test of the resource-based theory: Strategic regulation in the Dutch audit industry. *Strategic Management Journal, 17*, 549–569.
McCullagh, P., & Nelder, J. A. (1989). *Generalized linear models* (2nd ed.). Boca Raton, Florida: CRC Press.
McKendrick, D. M., Jaffee, J., Carroll, G. R., & Khessina, O. M. (2003). In the bud? Disk array producers as a (possibly) emergent organizational form. *Administrative Science Quarterly, 48*, 60–93.
Napier, C. J. (2006). Accounts of change: 30 years of historical accounting research. *Accounting, Organizations and Society, 31*, 445–507.
Ostrom, E. (1990). *Governing the Commons: The evolution of institutions for collective action*. New York: Cambridge University Press.
Pennings, J. M., Lee, K., & van Witteloostuijn, A. (1998). Human capital, social capital, and firm dissolution. *Academy of Management Journal, 41*(4), 425–440.
Preston, A. M., Cooper, D. J., Scarbrough, D. P., & Chilton, R. C. (1995). Changes in the code of ethics of the U.S. Accounting profession, 1917 and 1988: The continual quest for legitimation. *Accounting, Organizations and Society, 20*, 507–546.
Purdy, J. M., & Gray, B. (2009). Conflicting logics, mechanisms of diffusion, and multilevel dynamics in emerging institutional fields. *Academy of Management Journal, 52*(2), 355–380.
Rao, H., Monin, P., & Durand, R. (2003). Institutional change in toque ville: Nouvelle cuisine as an identity movement in French gastronomy. *American Journal of Sociology, 108*(4), 795–843.
Rao, H., Morrill, C., & Zald, M. N. (2000). Power Plays: How social movements and collective action create new organizational forms. *Research in Organizational Behavior, 22*, 237–281.
Reay, T., & Hinings, C. R. (2009). Managing the rivalry of competing institutional logics. *Organization Studies, 30*(6), 629–652.
Robson, K., Willmott, H., Cooper, C., & Puxty, T. (1994). The ideology of professional regulation and the markets for accounting labour: Three episodes in the recent history of the U.K. Accountancy profession. *Accounting, Organizations and Society, 19*(6), 527–553.
Scott, W. R. (2001). *Institutions and organizations*. Thousand Oaks, CA: Sage.
Suddaby, R., Cooper, D. J., & Greenwood, R. (2007). Transnational Regulation of Professional Services: Governance dynamics of field level organizational change. *Accounting, Organizations and Society, 32*, 333–362.
Thornton, P. H., & Ocasio, W. (1999). Institutional logics and the historical contingency of power in organizations: Executive succession in the higher education publishing industry, 1958–1990. *American Journal of Sociology, 105*(3), 801–843.
Vries, J. de (1985). *Geschiedenis der Accountancy in Nederland: Aanvang en ontplooiing, 1895–1935 (History of accountancy in The Netherlands: Start and development, 1895–1935)*. Assen/Maastricht: Van Gorcum.

Walker, S. P. (1991). The Defence of Professional Monopoly: Scottish chartered accountants and 'satellites in the accountancy firmament' 1854-1914. *Accounting, Organizations and Society, 16*(3), 257–283.
Walker, S. P. (1995). The genesis of professional organization in Scotland: A contextual analysis. *Accounting, Organizations and Society, 20*(4), 285–310.
Walker, S. P. (2004). The genesis of professional organisation in English accountancy. *Accounting, Organizations and Society, 29*, 127–216.
Walker, R. M., Brewer, G. A., Lee, M. J., Petrovsky, N., & van Witteloostuijn, A. (2019). Best practice recommendations for replicating experiments in public administration. *Journal of Public Administration Research and Theory* (in press).
Wezel, F. C. (2005). Location dependence and industry evolution: Founding rates in the United Kingdom motorcycle industry, 1895-1993. *Organization Studies, 26*(5), 729–754.
Whetten, D. A. (2006). Albert and whetten revisited: Strengthening the concept of organizational identity. *Journal of Management Inquiry, 15*(3), 219–234.
Whetten, D. A., & Mackey, A. (2002). A social actor conception of organizational identity and its implications for the study of organizational reputation. *Business & Society, 41*(4), 393–414.
Willmott, H. (1986). Organising the profession: A theoretical and historical examination of the development of the major accountancy bodies in the U.K. *Accounting, Organizations and Society, 11*(6), 555–580.